State Revolving Fund Loan Programs
Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT

CITY OF JEFFERSONVILLE
Proposed Early Action Projects and Middle Road Force Main
State Revolving Fund Project # WW06 12 10 02

DATE: September 12, 2007

DEADLINE FOR SUBMITTAL OF COMMENTS: October 12, 2007

I. INTRODUCTION

The above entity has applied to the State Revolving Fund Loan Program (SRF) for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name:	City of Jeffersonville Jeffersonville City Hall 500 Quartermaster Court Jeffersonville, Indiana 47130
SRF Project Number:	WW06 12 10 02
Authorized Representative:	The Honorable Robert L. Waiz, Jr., Mayor City of Jeffersonville

II. PROJECT LOCATION

Jeffersonville is located in Clark County across the Ohio River from Louisville, Kentucky. The study area encompasses approximately 9,000 acres, which includes most of Jeffersonville Township and portions of Utica Township. These areas are located in the Jeffersonville, IN-KY USGS quadrangle and in the Charlestown, IND-KY USGS quadrangle, respectively. The existing sewer service area and future service area are one and the same.

The projects and project areas include (1) Middle Road, where a new 18-inch force main will be installed; (2) expansion of the Mill Creek Pump Station; (3) expansion of the wastewater treatment plant (WWTP); (4) separation and elimination of combined sewer overflow (CSO) 006 (River Pointe); and (5) separation and elimination of CSO 014 (Blanchel Terrace); (6) removal of Ewing Lane Pump Station discharge from the combined sewer system; (7) Tenth Street Phase 2 stormwater separation project; and (8) the rehabilitation/conversion of the Tenth Street CSS interceptor to a sanitary sewer.

All of the projects are located in the Jeffersonville, IN-KY USGS quadrangle, within the Clark Military Grant. The new 18-inch force main along Middle Road will be located in Survey Nos. 4, 12, and 14; the Mill Creek Pump Station expansion will be located in Survey No. 10; the expansion of the WWTP will be located in Survey No.1, the separation and elimination of CSO 006 will be located in Survey No.1; the separation and elimination of CSO 014 will be located in Survey No.3; the removal of the Ewing Lane Pump Station discharge from the CSS will be located in Survey Nos. 3 and 4; the Tenth Street Phase 2 stormwater separation project will be located in Survey No.2; and the rehabilitation/conversion of the Tenth Street CSS interceptor to a sanitary sewer will be located in Survey No.1 (see Figures 1.02-1 and 1.03-1).

III. PROJECT NEED AND PURPOSE

Each of these projects, except for the Middle Road force main project, has been approved as an Early Action Project by the U.S. EPA and the Indiana Department of Environmental Management (IDEM) as components of the city's CSO LTCP.

These projects will eliminate two CSOs and improve the city's collection and treatment systems. The city has prepared a Twenty-Year Master Plan for the collection and treatment systems and a CSO Long-Term Control Plan (LTCP), in accordance with the requirements in the city's National Pollutant Discharge Elimination System (NPDES) permit. The U.S. EPA and the IDEM are currently reviewing the city's CSO LTCP.

Studies performed by the city indicated that the city should split its sewer system into two areas and construct a new WWTP in the north. These two areas are divided by I-265/Port Road, which extends east and west across the service area. The current and future service areas include the area within Jeffersonville's corporate boundary, the Town of Utica, and some adjacent unincorporated areas in Clark County. Most of the development is occurring in areas such as Lentzier Creek and Pleasant Run, which are located in the northern part of the service area. The nearby Oak Park Conservancy District service area shown on Figure 1.02-1 is a separate sewer utility. After independent reviews were conducted on both the Master Plan and the LTCP, the city decided to expand its downtown WWTP and have all existing and future flows conveyed to this facility, rather than build a new north WWTP, which was being considered at one time.

The city owns and operates a sanitary sewer system, storm water system, and combined sewer system (i.e., sewers which carry both storm water and sanitary wastewater). The Combined Sewer Service Area (CSSA) is approximately 15 percent of the city's current service area, while the remaining 85 percent is a Sanitary Sewer Service Area (SSSA) comprised of separate sanitary sewers and storm sewers. The CSSA is located in the southern part of the service area and encompasses approximately 1,350 acres.

Jeffersonville's combined sewers were constructed in the early 1900s and are located in the older and downtown section of the city. The combined sewer system was expanded in the 1930s. Sanitary sewers were not constructed until after 1950 to serve new development. The sewers in the combined sewer system are from 12-inches to 96-inches in diameter and are comprised of brick, vitrified clay pipe (VCP) and reinforced concrete pipe (RCP). There are three major lift stations (Tenth Street Pump Station, Spring Street Pump Station, and Mill Creek Pump Station) and 27 minor or secondary pumping stations.

Jeffersonville has sixteen permitted CSOs, numbered as follows: 003 Spring Street Pump Station, 004 Mill Creek Pump Station, 005 Missouri Avenue (this CSO has been eliminated), 006 River Pointe Plaza, 007 Clark Street, 008 Spring Street, 009 Wall Street, 010 Walnut Street, 011 Meigs Avenue, 012 Penn Street, 013 Graham Street, 014 Blanchel Terrace, 015 Arctic Springs Lift Station, 016 Ewing Lane Pump Station (this CSO has been eliminated), 017 Louise Pump Station (this CSO has been eliminated), and 018 Tenth Street Lift Station. CSOs 003 and 004 discharge to Mill Creek; CSOs 006 through 015 discharge to the Ohio River; and CSO 018 discharges to Cane Run.

A sewer system analysis revealed that two lift stations (Mill Creek Pump Station, and Clark Maritime Center [CMC] #2 Pump Station) had inadequate capacity to convey projected future flows.

The city operates a Class IV 6.0 million gallons per day (MGD) activated sludge plant with ultraviolet (UV) disinfection. Sludge is treated in two aerobic digesters and dewatered by a belt filter press before being ultimately disposed in a landfill.

IV. PROJECT DESCRIPTION

A. The proposed collection system improvements include:

1. Installation of approximately 19,500 feet of 18-inch force main along Middle Road from the Clark Maritime Center Pump Station to an existing 27-inch sewer (see Figure 6.03-1); and

2. Expansion of the Mill Creek Pump Station from 2,100 gallons per minute (gpm) to 7,500 gpm and installation of approximately 1,800 feet of 36-inch influent sewer parallel to the existing influent sewer (see Figure 6.03-2).

B. The proposed WWTP upgrade and expansion from 6.0 million gallons per day (MGD) to 9.0 MGD includes (see Figure 6.03-3):

1. Construction of a new 16-foot diameter grit removal basin;

2. Installation of a new 15 MGD mechanically cleaned screen;

3. Replacement of the four 100 horsepower (HP) aerator motors in the oxidation ditches with 200 HP aerator motors;

4. Construction of a new return activated sludge/waste activated sludge (RAS/WAS) pump station to serve the new clarifier (see below) and installation of three new RAS pumps rated at 2,200 gpm each;

5. Construction of a new 120-foot diameter secondary clarifier;

6. Installation of one blower for post-aeration at a rated capacity of 500 standard cubic feet per minute (scfm);

7. Installation of an additional UV disinfection unit to handle a peak hourly flow of 34 MGD;

8. Construction of a new Mixed Liquor (ML) splitter box to divide the ML flow between the existing secondary clarifiers and the new clarifier;

9. Minor modifications to the facilities include: upgrades to the non-potable water (NPW) system, upgrades to the sludge transfer pumps, upgrades to odor control, and expansion of the administration building;

10. Construction of a new parallel 48-inch outfall sewer;

11. Installation of one new 40-foot diameter gravity thickener; and

12. Construction of a new 48-inch parshall flume for measuring effluent flow.

C. The proposed CSO LTCP Sewer Rehabilitation/Separation projects include:

1. Separation and elimination of CSO 006 by installing approximately 1,000 feet of 12-inch storm sewer and converting the combined sewer to sanitary, thus changing the CSO outfall to storm sewer outfall (see Figure 6.03-5).

2. Separation and elimination of CSO 014 by installing approximately 1,000 feet of 12-inch storm sewer and converting the combined sewer to sanitary, thus changing the CSO outfall to a storm sewer outfall (see Figure 6.03-6).

3. Removal of the Ewing Lane Pump Station's discharge from the combined sewer system by redirecting it to a sanitary sewer system in the Mill Creek Pump Station service area. Rerouting the discharge from the Ewing Lane Pump Station will require the installation of approximately 3,500 feet of 8-inch force main and an upgrade of the pump station (see Figure 6.03-7).

4. Implementation of the Tenth Street Phase 2 Stormwater Separation project by completing the extension of a new storm sewer along Tenth Street from Pratt Street to Main Street by installing approximately 1,500 feet of 36-inch storm sewer (see Figure 6.03-8).

5. Rehabilitation/conversion of the Tenth Street combined sewer interceptor from Spring Street to Main Street to a sanitary sewer by using cured-in-place pipe (CIPP) lining method to restore structural integrity and help reduce infiltration/inflow in the sewer system; CIPP is a trenchless technology (see Figure 6.03-9).

The proposed WWTP will be designed to treat the following flow components:

Source	Million Gallons per Day
Domestic	4.5
Commercial & Industrial	2.8
Residual Infiltration	1.7
Average Design Flow	**9.0**
Peak Hourly Design Flow	**34.0**

The WWTP effluent will continue to discharge to the Ohio River via Cane Run.

The IDEM has proposed the following effluent limitations for Jeffersonville's expanded WWTP based on a Wasteload Allocation dated September 12, 2005:

	Summer		Winter	
	Monthly Average mg/l	Weekly Average mg/l	Monthly Average mg/l	Weekly Average mg/l
$CBOD_5$	10	15	20	30
TSS	12	18	24	36
NH_3-N	1.5	2.3	3.0	4.5

	Daily Minimum	Daily Maximum	Monthly Average
pH (standard units)	6.0	9.0	
Dissolved Oxygen			
Summer (mg/l)	6.0	---	
Winter (mg/l)	7.0	---	
E. coli (April - October)	-----	235 count/100 ml	125 count/100 ml
Fecal Coliform (November – March)			2000 count/100 ml

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

WWTP Construction Components	Cost
1. Mechanical Screen	$ 250,000 *
2. Grit Removal Basin	175,000 *
3. ML Splitter Box	150,000
4. 120-foot Clarifier	1,080,000
5. UV Channel	450,000
6. Post-Aeration Blower	50,520
7. Effluent Flume	200,000
8. 48-inch Parallel Effluent Line and outfall	350,000
9. RAS/WAS Pump Station	550,000
10. Gravity Thickener	190,000
11. Piping and Electrical	950,000
12. Existing Plant Needs	711,297 **
13. Upgrade Sludge Transfer Pumps	80,703 *
14. Administration Bldg. Expansion	198,000 *
15 Oxidation Ditch Aerator Motors	500,000
Construction Costs Subtotal	**$5,885,520**
Contingencies	588,553
Total Estimated Construction Costs	**$6,474,073**
Non-Construction Components	
Engineering and Inspection	844,445 *
Legal, Bond, Administration	281,482 *
Non-Construction Subtotal	**$1,125,927**
Total Estimated WWTP Construction Cost	**$7,600,000**

* Items ineligible for SRF funding

** e.g., upgrade to: non-potable water system, odor control system, maintenance garage

Collection System & CSO LTCP Components	Cost (includes contingency and non-construction cost)
1. Install 19,500 feet of 18-inch force main along Middle Road	$1,600,000
2. Upgrade Mill Creek Pump Station from 2,100 gpm to 7,500 gpm and install 1,800 feet of 36-inch sewer	1,800,000
3. Separate/Eliminate CSO 006	600,000
4. Separate/Eliminate CSO 014	500,000
5. Remove Ewing Lane Pump Station (PS) discharge and install 8-inch force main	650,000
6. Tenth Street Phase 2 Stormwater Separation Project	900,000

7. Rehabilitate/convert the Tenth Street Combined Sewer System (CSS) Interceptor	500,000
Total Estimated Collection System and CSO LTCP Cost	**$6,550,000**

WWTP, Collection System & CSO LTCP Projects

	Total Cost	SRF-Funded	Locally Funded***
1. Expand WWTP to 9.0 MGD	$ 7,600,000	$ 5,700,000	$1,900,000 **a**
2. Upgrade Mill Creek Pump Station from 2,100 gpm to 7,500 gpm and install 1,800 feet of 36-inch sewer.	1,800,000	1,800,000	
3. Install 19,500 feet of 18-inch force main along Middle Road.	1,600,000	1,400,000	200,000 **b**
4. Separate/Eliminate CSO 006	600,000	600,000	
5. Separate/Eliminate CSO 014	500,000	450,000	50,000 **c**
6. Remove Ewing Lane PS Discharge and install 8-inch force main	650,000	650,000	
7. Tenth Street Phase 2 Stormwater Separation Project	900,000	900,000	
8. Rehabilitate/convert the Tenth Street CSS Interceptor	500,000	500,000	
Total Estimated Project Costs	**$14,150,000**	**$12,000,000**	**$2,150,000**

***Locally Funded Items**

a. WWTP: Mechanical screen ($275,000, including ten percent contingency); grit removal basin ($192,500, including ten percent contingency); engineering design and inspections ($844,445); legal, administrative, etc., ($281,482); upgrade sludge transfer pumps ($86,573, including ten percent contingency; and Administration Bldg. expansion ($220,000, including ten percent contingency).

b. Engineering design and construction inspection.

c. Engineering design.

B. The city will borrow $12,000,000 through a 20-year State Revolving Fund Loan Program (SRF) loan at an interest rate to be determined at loan closing. The remaining $2,150,000 will come from local funds (i.e., hook-on fees, cash on hand). Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. Description of Evaluated Alternatives

Each of these projects, except for the Middle Road force main project, has been approved as a CSO LTCP Early Action Project by the U.S. EPA and the IDEM in correspondence dated August 30, 2006.

Three WWTP alternatives were evaluated:

A. No Action: This alternative was rejected, since the city has been experiencing steady growth, particularly in the northern part of the service area above I-265/Port Road, causing the collection and treatment systems to operate near design capacity. Most of the reduction or elimination of surcharging, bypassing and overflows is being accomplished through the implementation of the Early Action Projects, including the expansion of the WWTP. If the collection system and treatment system are not expanded, surcharging, bypassing, or overflows could occur, violating the city's NPDES permit, which requires the city to comply with the requirements of the Clean Water Act.

B. Construct a new North 5.0 MGD WWTP and expand existing WWTP: The new plant would have treated sanitary flows from the growth areas to the north and east. The existing plant would have been expanded to treat future sanitary flows and CSO flows in the downtown area. This alternative was rejected, based on cost estimates.

C. Expansion of the existing WWTP: This alternative proposes an increase in the average design flow from 6.0 MGD to 9.0 MGD, and an increase in the peak hourly flow from 25 MGD to 34 MGD. Some treatment plant components will be improved or modified, and some new components will be constructed, as described in section IV.B above. **This is the selected WWTP alternative.**

Two alternatives were evaluated regarding implementation of the Early Action Projects.

A. No Action: If no action were taken, surcharging and overflows would continue and worsen; CSO discharges would increase in frequency and volume. Since the city's NPDES permit requires the city to comply with Clean Water Act water quality standards, this alternative was rejected.

B. Implementation of the Early Action Projects and the Middle Road Force Main: Implementing these projects will help reduce or eliminate basement and street flooding, as well as reduce or eliminate discharges of sanitary or combined flow to receiving streams. **This is the selected alternative.**

VII. Environmental Impacts of the Feasible Alternatives

A. Direct Impacts of Construction and Operation

Disturbed and Undisturbed Areas: The proposed sewer projects will be constructed within the road right-of-way which has been disturbed by road construction. This also includes the Middle Road force main, which will be constructed inside the previously disturbed right-of-way of Port Road and Middle Road from the Clark Maritime Center Pump Station to the flood protection levee, and in the levee easement to the existing 27-inch sanitary interceptor; the levee easement has been significantly disturbed by levee construction. The WWTP expansion project will occur on the existing treatment plant site, which has been previously disturbed from past construction

activities. The new effluent line is labeled "proposed parallel outfall" on Figure 6.03-10 and will be constructed adjacent to the existing WWTP effluent line, on land significantly disturbed by installation of the existing effluent line and in street rights-of way, which have also been significantly disturbed.

Historic/Architectural Sites (Figures C-6 thru C-9): The proposed projects will not affect structural historic resources. Audible or visual impacts will be temporary. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Biota: Construction will likely result in the loss of a few trees here and there, but the projects will not affect wooded areas. Tree loss and habitat destruction will be kept to a minimum. The projects will be implemented to minimize impacts to state or federally listed endangered species and their habitat.

Prime Farmland: The project will not affect prime farmland.

Wetlands (Figures C-10 thru C-16): The projects will not affect National Wetlands Inventory map wetlands. The proposed 18-inch force main along Middle Road will be installed adjacent to a forested wetland at the southern end of the Middle Road force main route near the Jeff Aquatic Center (see Figure C-11); however, the wetland itself is unlikely to be affected by the project.

100-Year Floodplain (Figures C-17 thru C-20): Except for the proposed 18-inch force main along Middle Road, none of the proposed projects will be located within the 100-year floodplain. Since the proposed force main will be installed below ground, no displacement of floodwaters will occur.

Surface Waters and Stream Crossings (Figure 5.09-1): The proposed 18-inch force main along Middle Road will cross Lancassange Creek using the open cut construction method. The stream will be restored upon completion of the construction activities. The proposed projects will not adversely affect Exceptional Use Streams, Outstanding State Resource Waters or Natural, Scenic and Recreational Rivers and Streams.

Groundwater: According to the Soil Survey for Clark and Floyd Counties, the depth to seasonal high groundwater is greater than six feet below the ground surface. Short-term impacts to groundwater include the need for localized dewatering at a portion of the WWTP. The city obtains its drinking water from Indiana-American Water Company. The construction and operation of the proposed projects will not impact this company's wells or a sole source aquifer.

Air Quality: The proposed projects will result in short-term constructed related impacts to air quality during construction.

Open Space and Recreational Opportunities: Construction of the proposed projects will neither create nor destroy open space and recreational opportunities.

The construction and operation of the proposed projects will not impact National Natural Landmarks.

B. Indirect Impacts

The city's Preliminary Engineering Report (PER) states: *The City of Jeffersonville will ensure, through local zoning laws or other means, that future development, as well as future collection*

system and conveyance, storage, or treatment plant construction projects connecting to SRF-funded facilities, will not negatively impact archaeological/historical/structural resources. The City of Jeffersonville will require new development and treatment plant projects to be constructed within the guidelines of the IDEM, IDNR, Natural Resources Conservation Service, U.S. Fish and Wildlife Service, and other environmental review agencies. No line or structure funded by SRF financing will be sited/routed on undisturbed land.

C. Comments from Environmental Review Authorities

This document serves as the first notice to most such authorities, since impacts appear limited. The National Resources Conservation Service, in correspondence dated September 4, 2007, stated that the project "*will not cause a conversion of prime farmland.*"

VIII. Mitigation Measures

The city's PER lists the following mitigation measures:

Construction would be limited to 7:00 A.M. to 7 P.M., Monday through Friday, unless otherwise approved.

The construction contractors will be required to minimize noise during construction by using equipment with mufflers and noise deadening devices.

The construction contractors will be required to control dust during construction through measures including, but not limited to the use of water trucks and street sweepers.

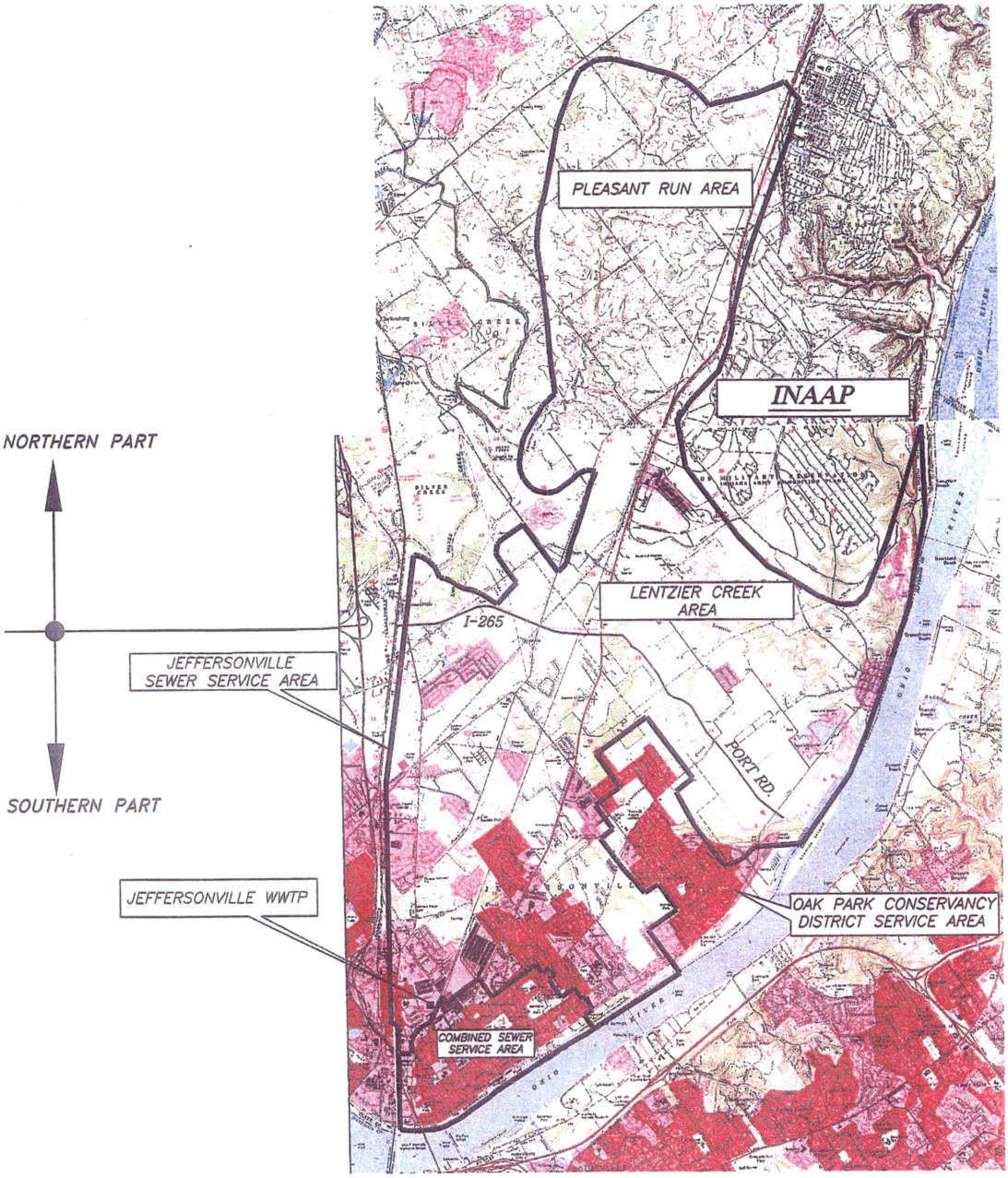
Any mitigation measures cited in future comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

During construction, specific practices will be required of contractors to minimize construction site run-off. Generally backfilling, reseeding, and restoration of excavated and disturbed areas are required as soon as possible after construction. In addition, the use of sedimentation ponds, silt fence, and other control measures to minimize sediment run-off from construction sites will be required.

The construction of the force mains and gravity sewers will affect the flow of vehicular and pedestrian traffic within the project corridor during construction. To mitigate this impact, local detours, via adjacent thoroughfares will be established. During this construction, it is likely that some roads will be temporarily closed to any non-construction related traffic since other routes to the residential areas exist.

IX. Public Participation

A properly publicized public hearing was held at 7:30 p.m. on December 14, 2005, at the City-County Building. Questions raised during the hearing dealt with sewer rates and population projections. The city did not receive written comments during the 10-day post-hearing comment period.



GRAPHIC SCALE

10,000 0 5,000 10,000 20,000

(IN FEET)

1 inch = 10,000 ft.

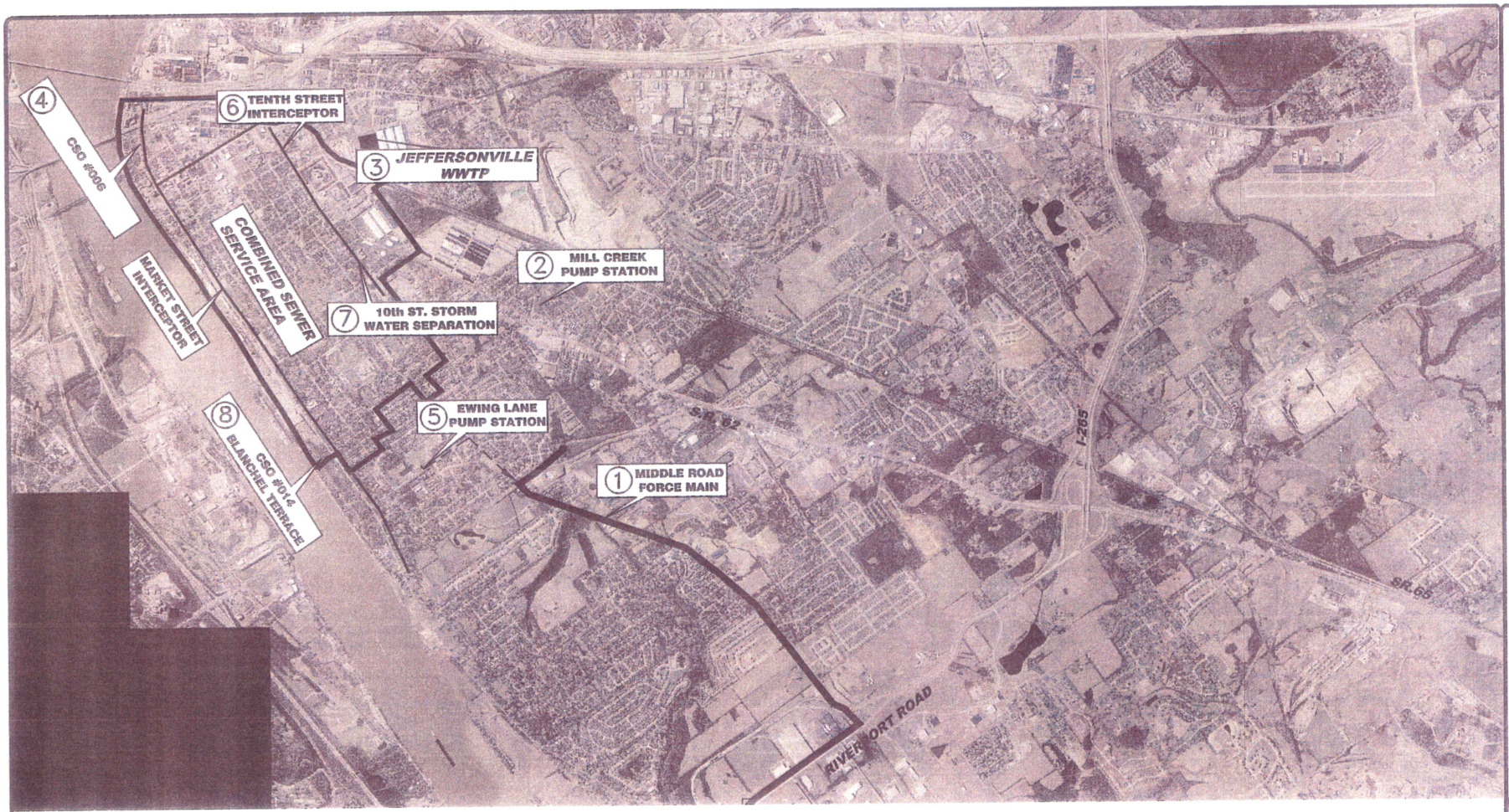
JEFFERSONVILLE WWTP - SERVICE AREA

PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 1.02-1
2-944-025

File: S:\Jeffersonville PER\PER DRAWINGS\Fig 1.02-1.dwg Time: Feb 06, 2007 - 8:06am



JEFFERSONVILLE WWTP
PROPOSED SRF PROJECTS

PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

SRF PROJECTS

① MIDDLE ROAD FORCE MAIN
② UPGRADE/EXPAND MILL CREEK P.S.
③ EXPAND WWTP TO 9.0 MGD
④ SEPARATE/ELIMINATE CSO #006
⑤ EWING LANE P.S. W.W. DISCHARGE
⑥ REHAB. 10th ST. CSS INTERCEPTOR
⑦ 10th ST. PHASE 2 STORMWATER SEPARATION
⑧ REMOVE CSO #014 BLANCHEL TERRACE

GRAPHIC SCALE

3,000 0 1,500 3,000 6,000 12,000

(IN FEET)
1 inch = 3,000ft.

REV. 7/26/07

STRAND ASSOCIATES, INC.® ENGINEERS

Figure 1.03-1

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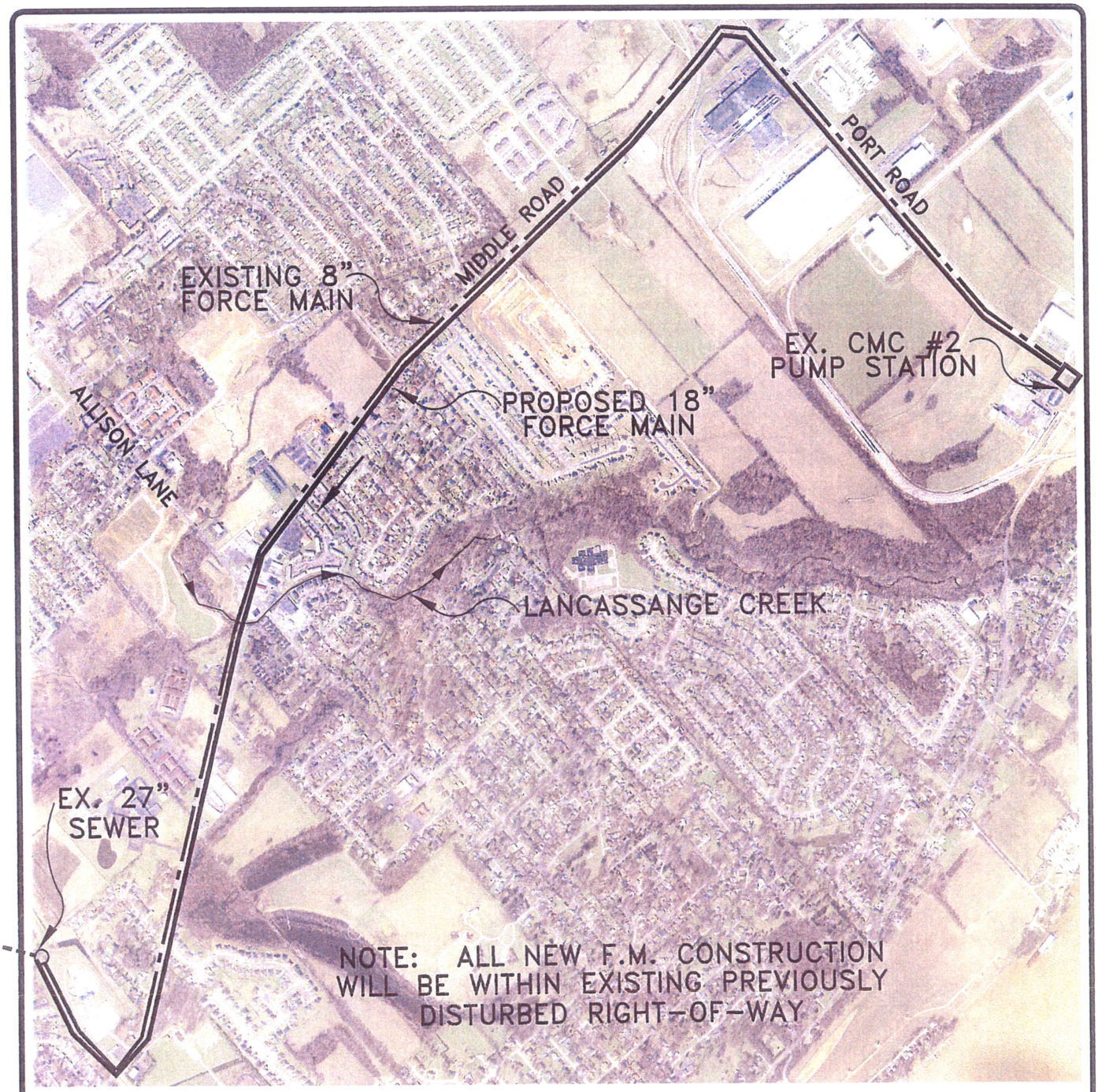
Figure 1.03-1



GRAPHIC SCALE

1,500 0 750 1,500 3,000

(IN FEET)

1 inch = 1500 ft.

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS

MIDDLE ROAD FORCE MAIN

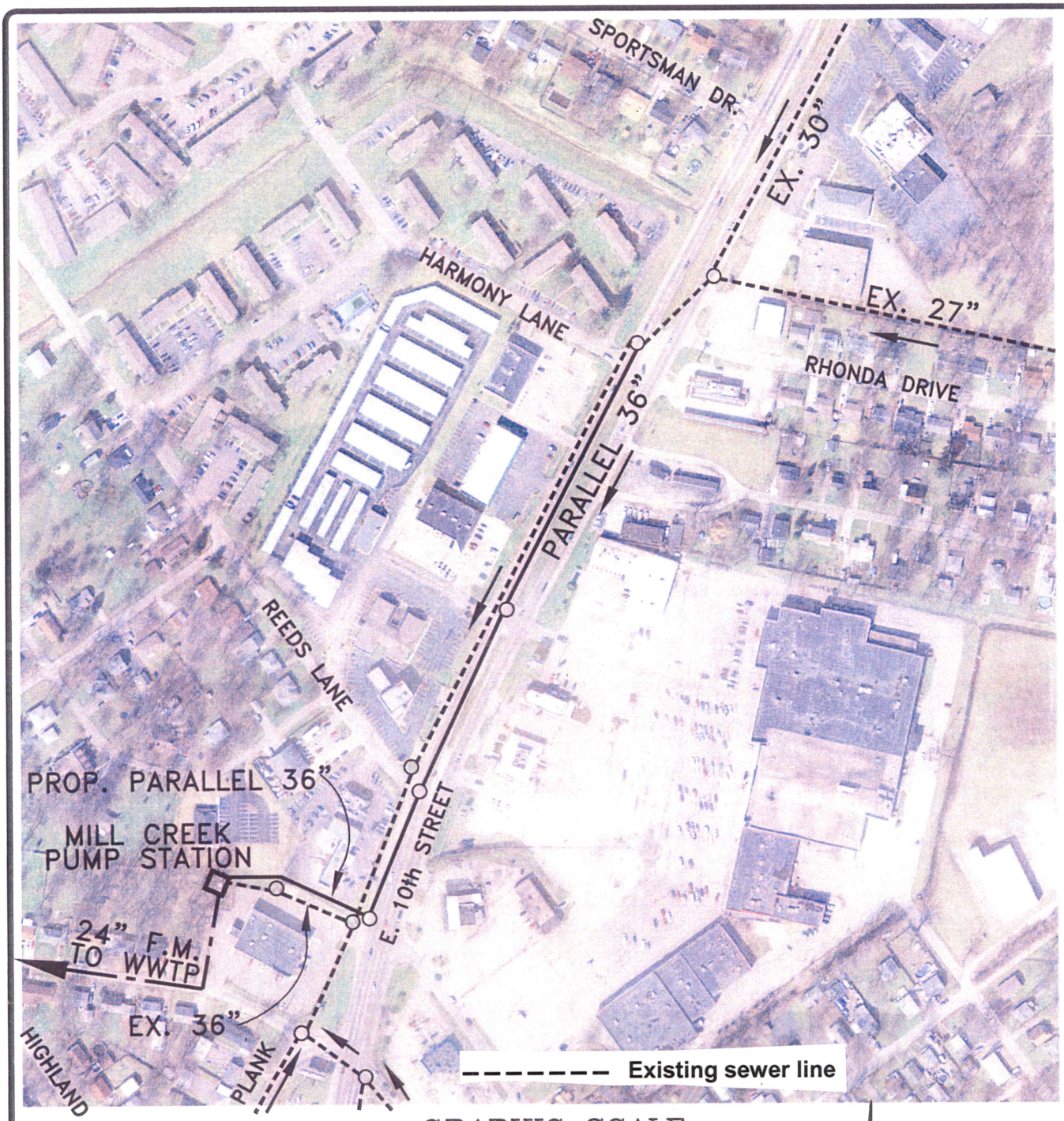
PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-1

2-944-025



GRAPHIC SCALE

300 0 150 300 600

(IN FEET)

1 inch = 300 ft.

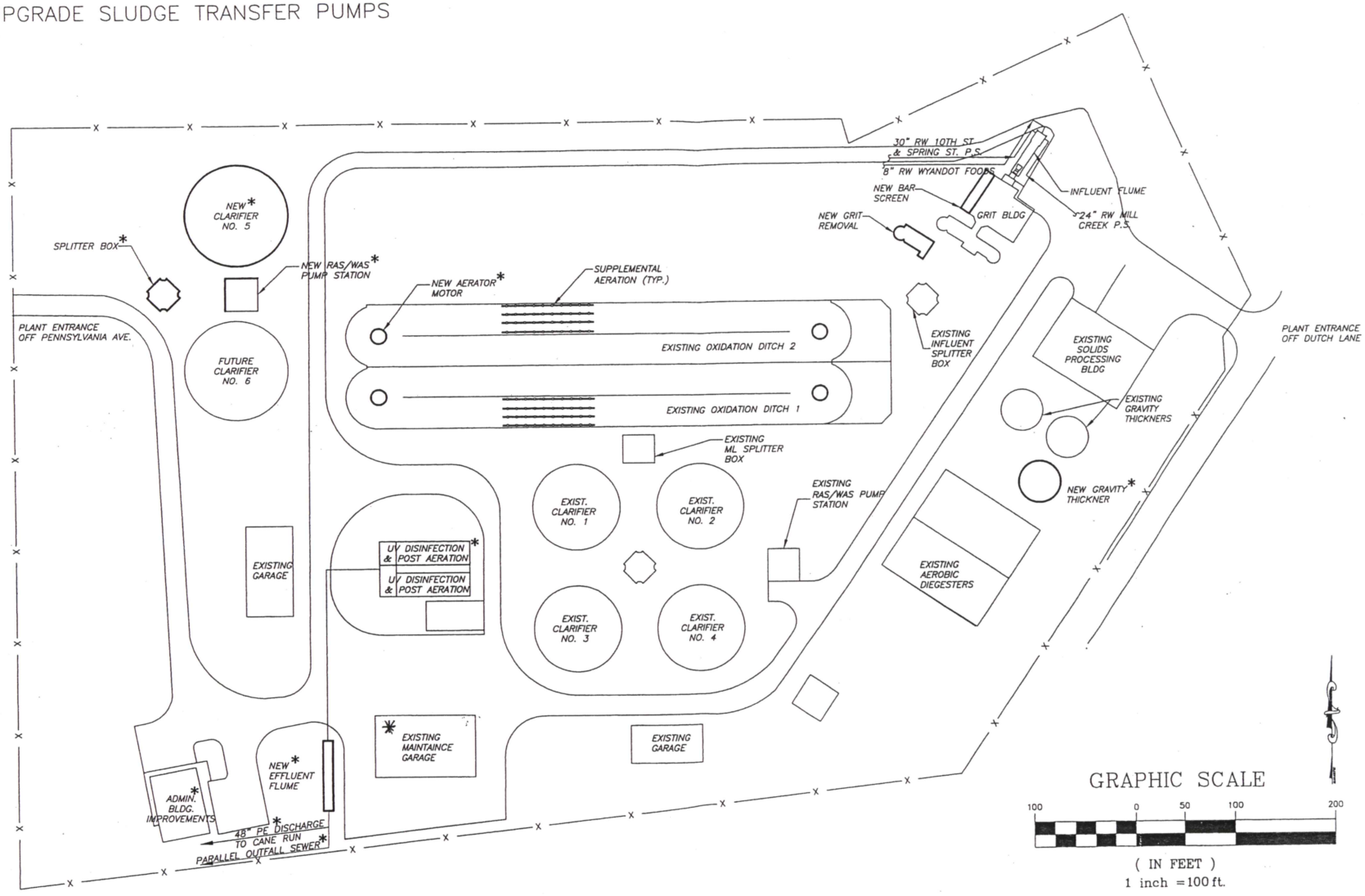
REV: 7-10-2007

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS
MILL CREEK PUMP STATION (MCPS)
PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-2
2-944-025

UPGRADE NON-POTABLE WATER SYSTEM
UPGRADE SLUDGE TRANSFER PUMPS



* DENOTES SRF FUNDED

JEFFERSONVILLE WWTP SITE PLAN

REVISED 7/16/07

JEFFERSONVILLE WWTP EXPANSION TO 9.0 MGD AVG., 34.0 MGD PEAK FLOW

PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure 6.03-3

Figure 6.03-3

File: S:\Jeffersonville PER\PER DRAWINGS\Fig 6.03-3.dwg - 9 MGD EXPANSION Time: Jul 16, 2007 - 12:01pm

GRAPHIC SCALE

300 0 150 300 600

(IN FEET)

1 inch = 300 ft.

REV: 7-26-2007

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS

CSO #006

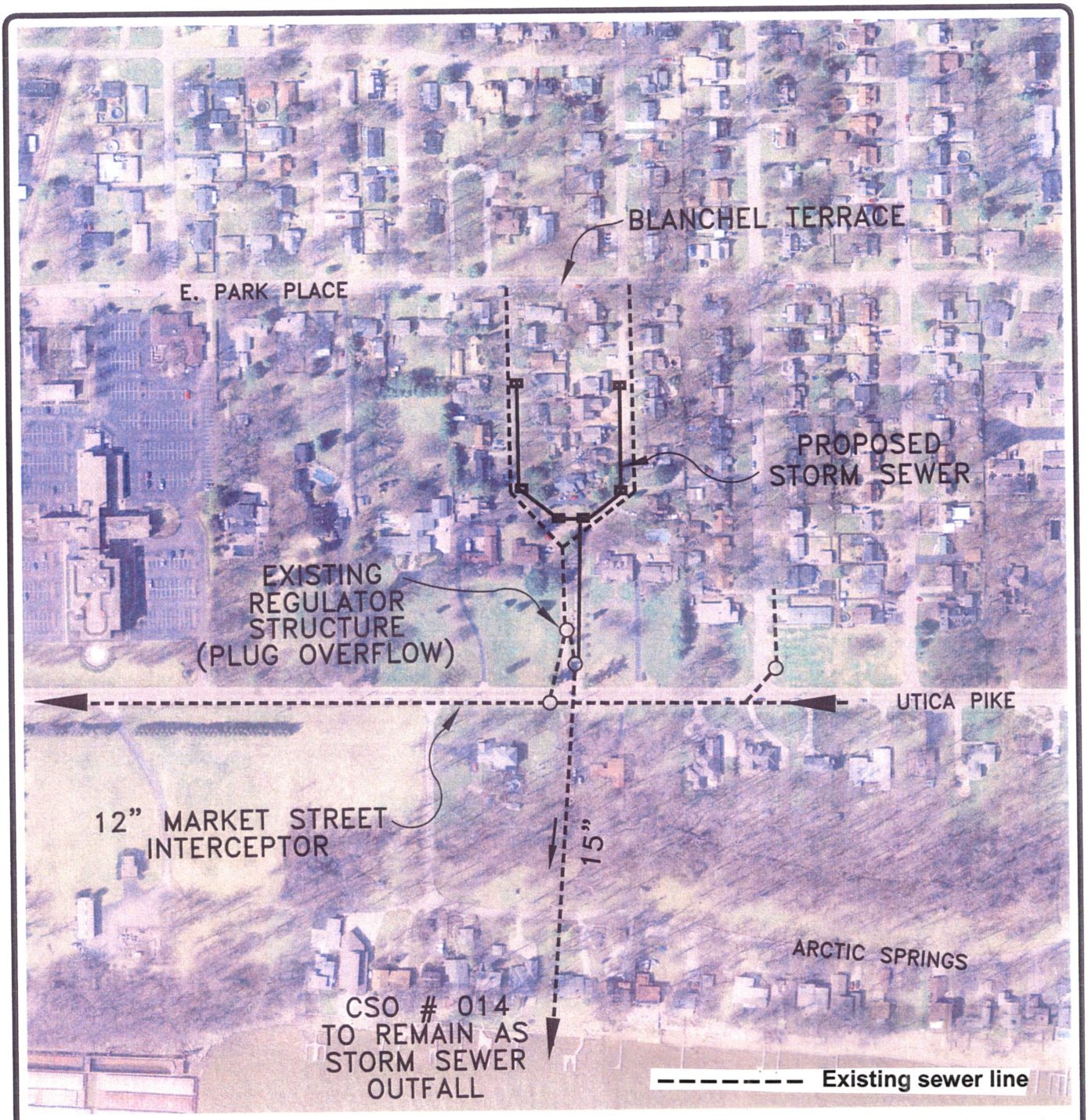
PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-5

2-944-025



GRAPHIC SCALE

300 0 150 300 600

(IN FEET)

1 inch = 300 ft.

REV: 3-28-2007

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS

CSO # 014 BLANCHEL TERRACE

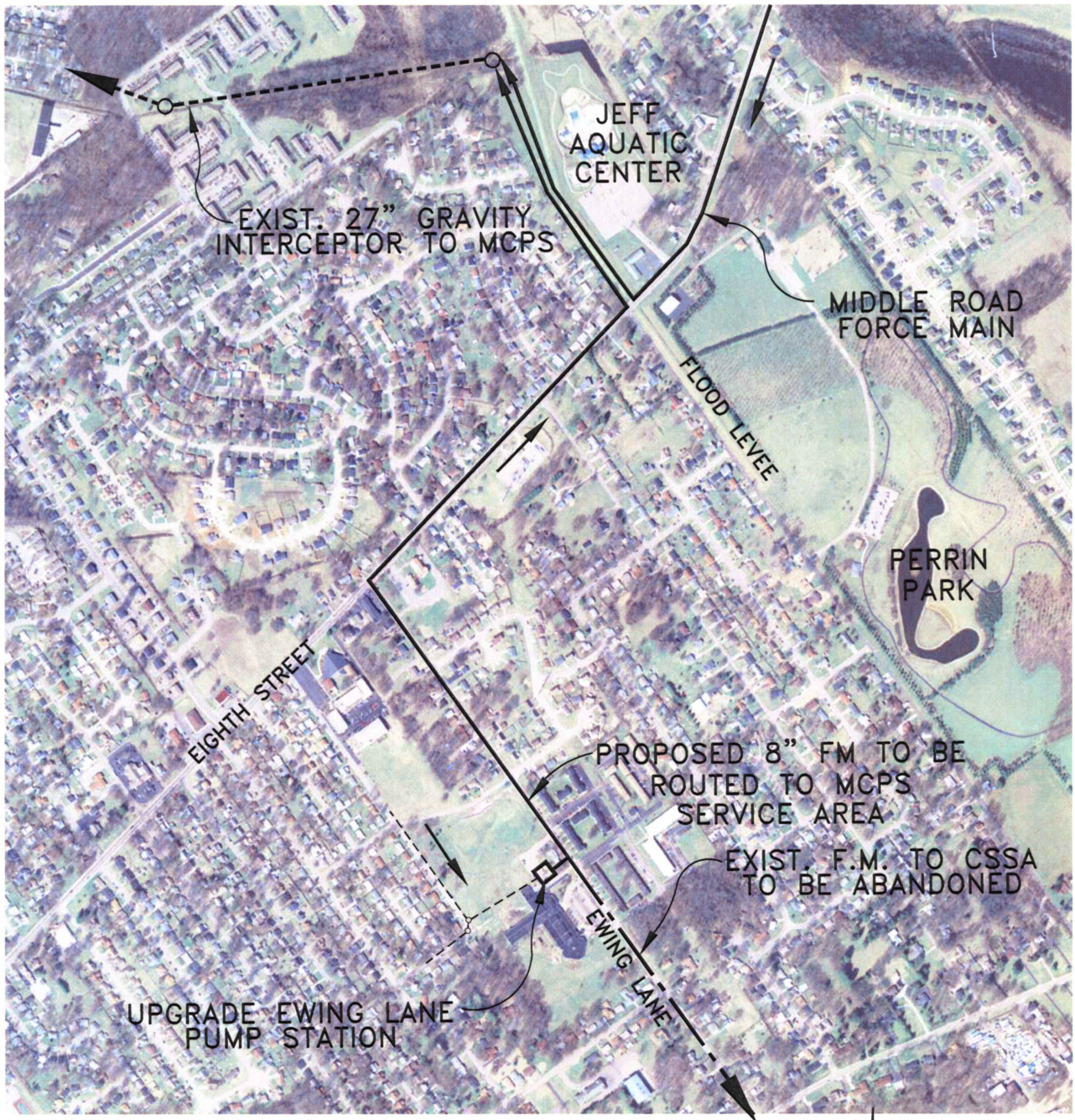
PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-6

2-944-025



GRAPHIC SCALE

800 0 400 800 1,600

(IN FEET)

1 inch = 800 ft.

REV: 9-6-2007

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS
EWING LANE PUMP STATION & FORCE MAIN
PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-7
2-944-025

GRAPHIC SCALE

1,000 0 500 1,000 2,000

(IN FEET)

1 inch = 1000 ft.

REV: 7-16-2007

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS
10th STREET PHASE 2 STORMWATER SEPARATION
PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-8
2-944-025

GRAPHIC SCALE

1,000 0 500 1,000 2,000

(IN FEET)

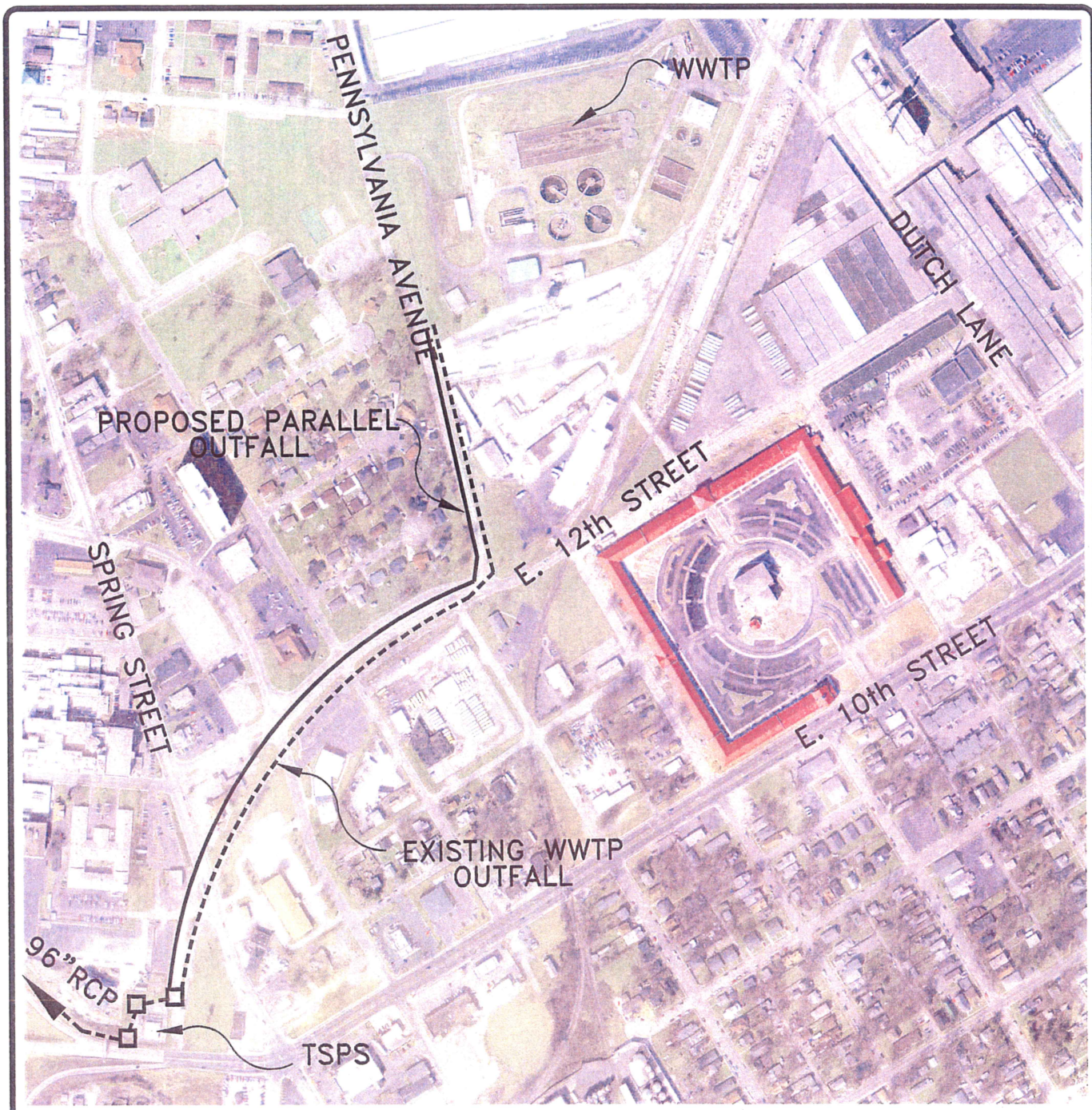
1 inch = 1000 ft.

REV: 7-16-2007

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS
10th STREET CSS INTERCEPTOR REHABILITATION
PRELIMINARY ENGINEERING REPORT
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-9
2-944-025



GRAPHIC SCALE

500 0 250 500 1,000

(IN FEET)

1 inch = 500 ft.

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS

JEFFERSONVILLE WWTP

PRELIMINARY ENGINEERING REPORT

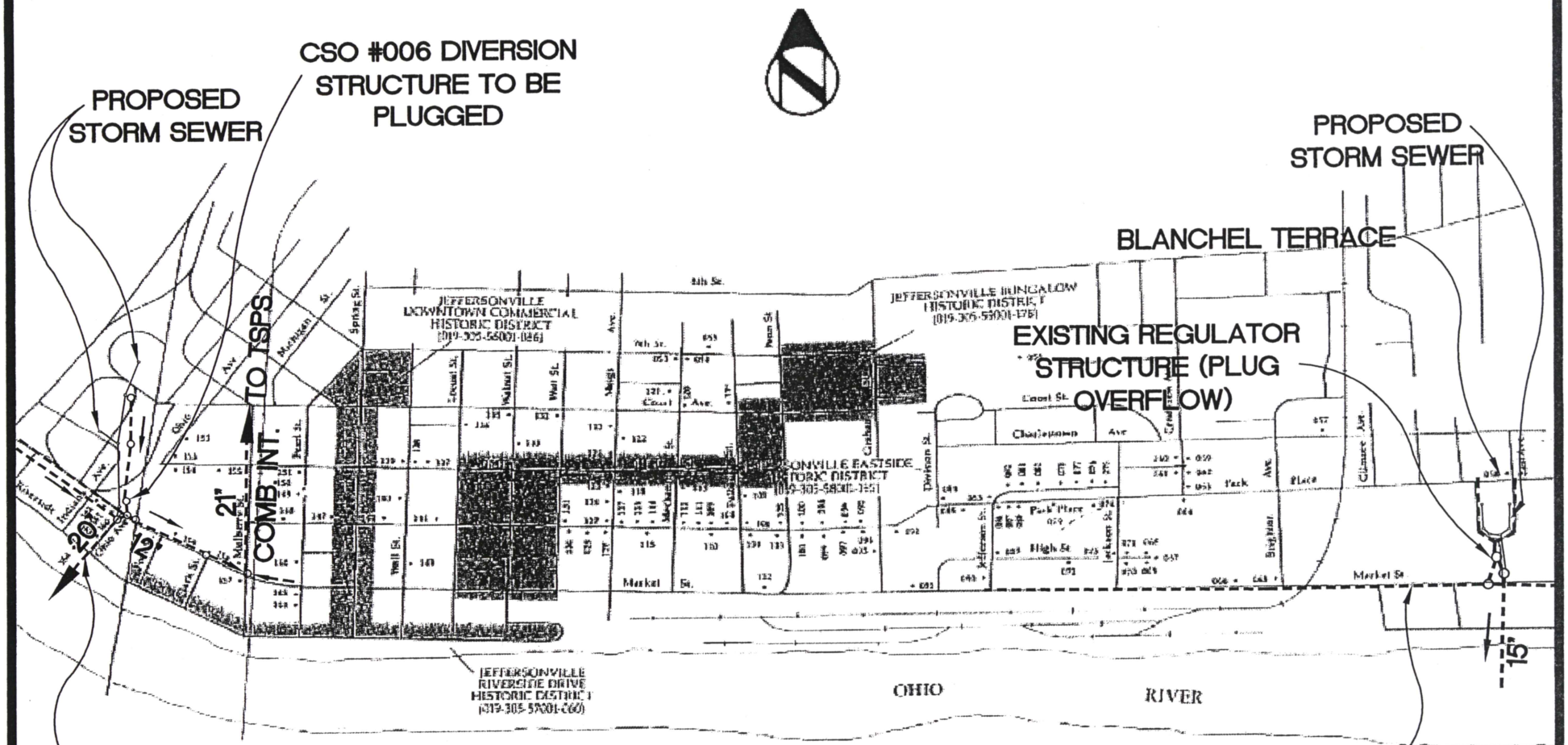
CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 6.03-10

2-944-025

Jeffersonville Scattered Sites (61001-164)



CLARK COUNTY INTERIM REPORT
INDIANA HISTORIC SITES AND STRUCTURES INVENTORY

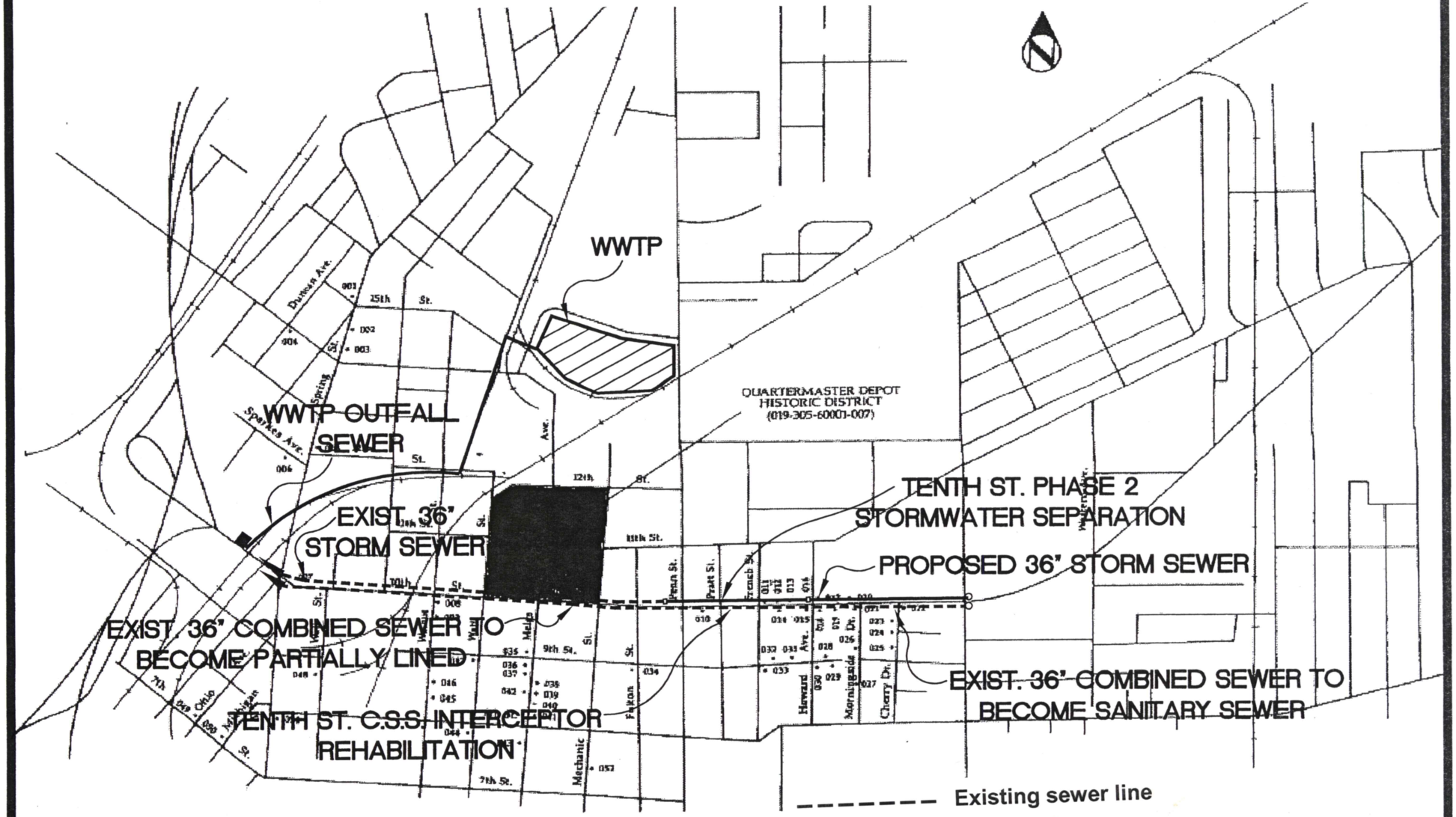
REV. 7/26/07

NO SCALE

Figure C-6

Figure C-6

Jeffersonville Scattered Sites (61001-164)



CLARK COUNTY INTERIM REPORT
INDIANA HISTORIC SITES AND STRUCTURES INVENTORY

REV: 3-28-2007

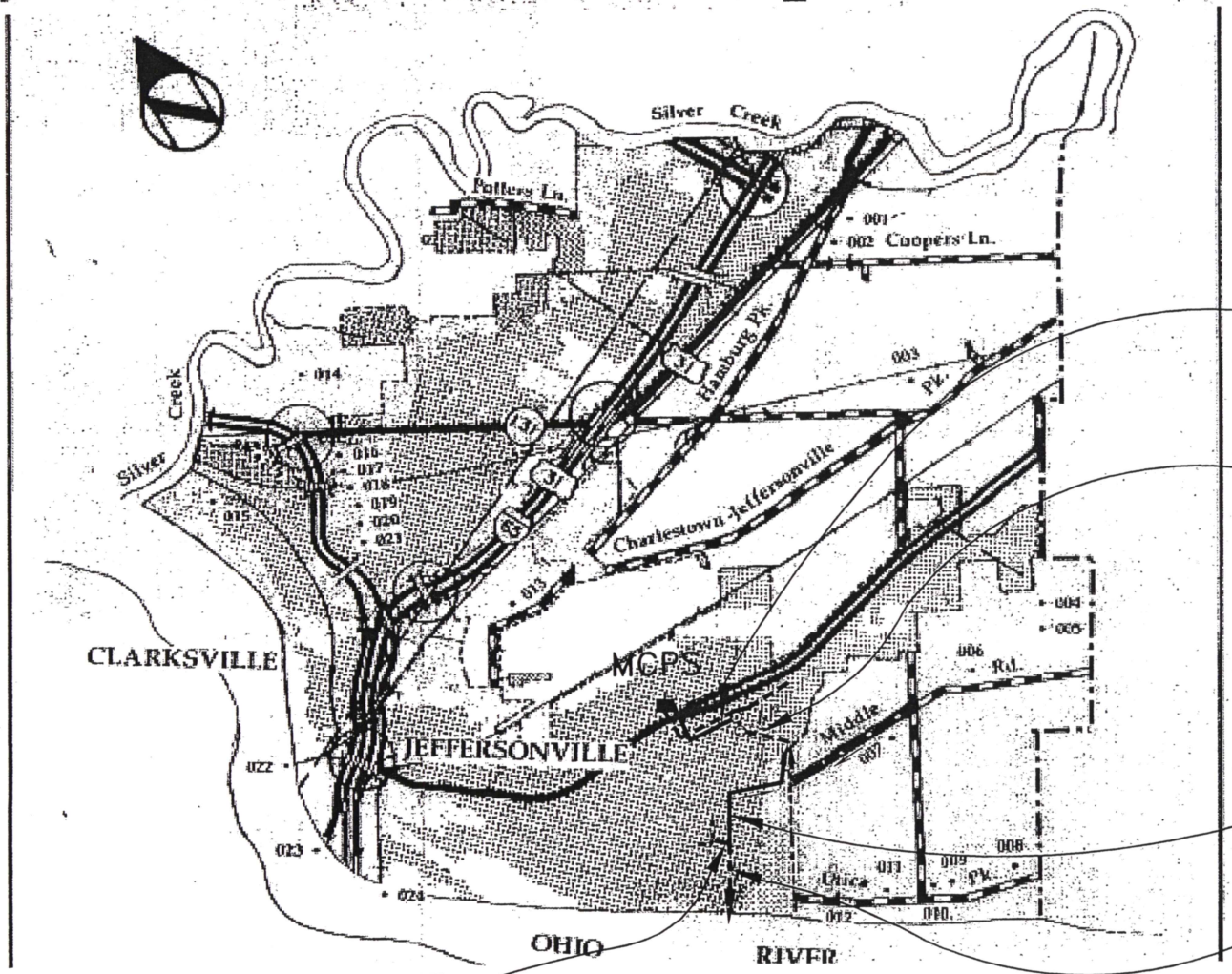
NO SCALE

Figure C-7

Figure C-7

received 7/23/07

Jeffersonville Township (55001-024)



PROPOSED PARALLEL 36" SEWER

EXIST. 27" GRAVITY INTERCEPTOR TO MCPS

PROPOSED 8" FM

EXIST. F.M. TO CSSA TO BE DIVERTED TO MCPS AREA

UPGRADE EWING LANE PUMP STATION

CLARK COUNTY INTERIM REPORT
INDIANA HISTORIC SITES AND STRUCTURES INVENTORY

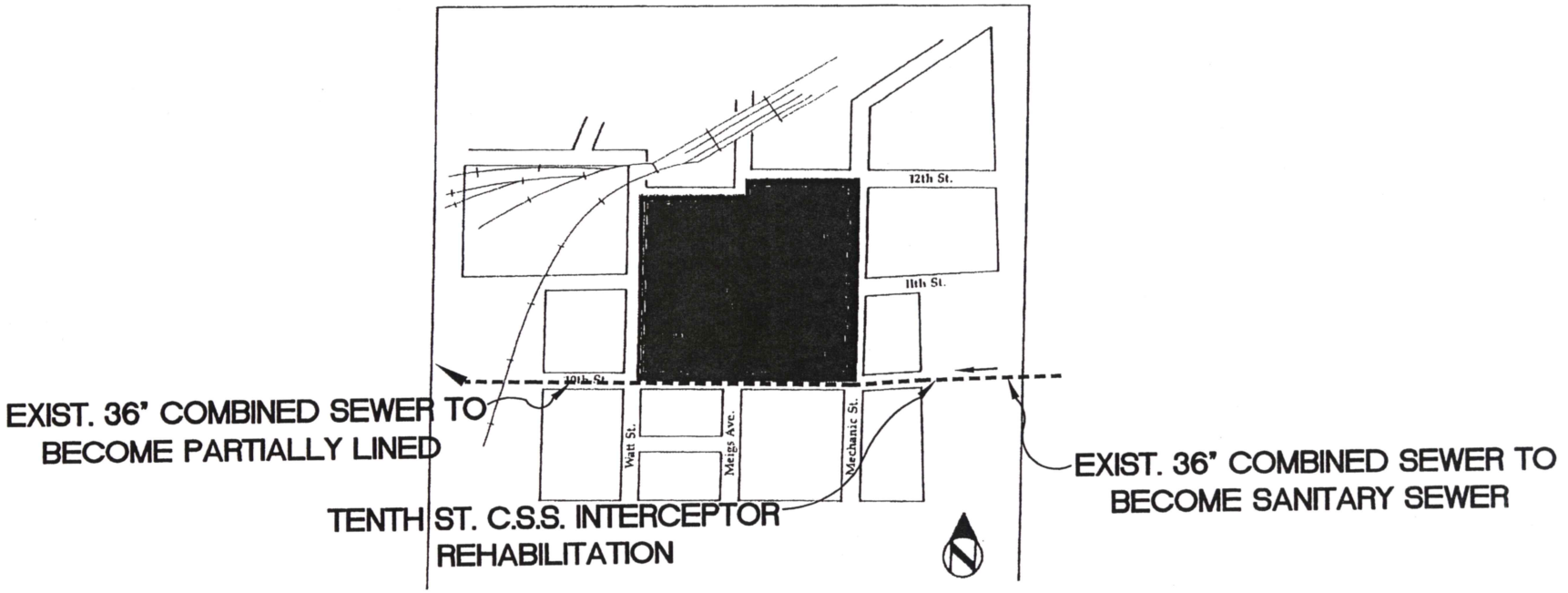
REV: 7/10/07

NO SCALE

Figure C-8

Received 7/23/07

Figure C-8



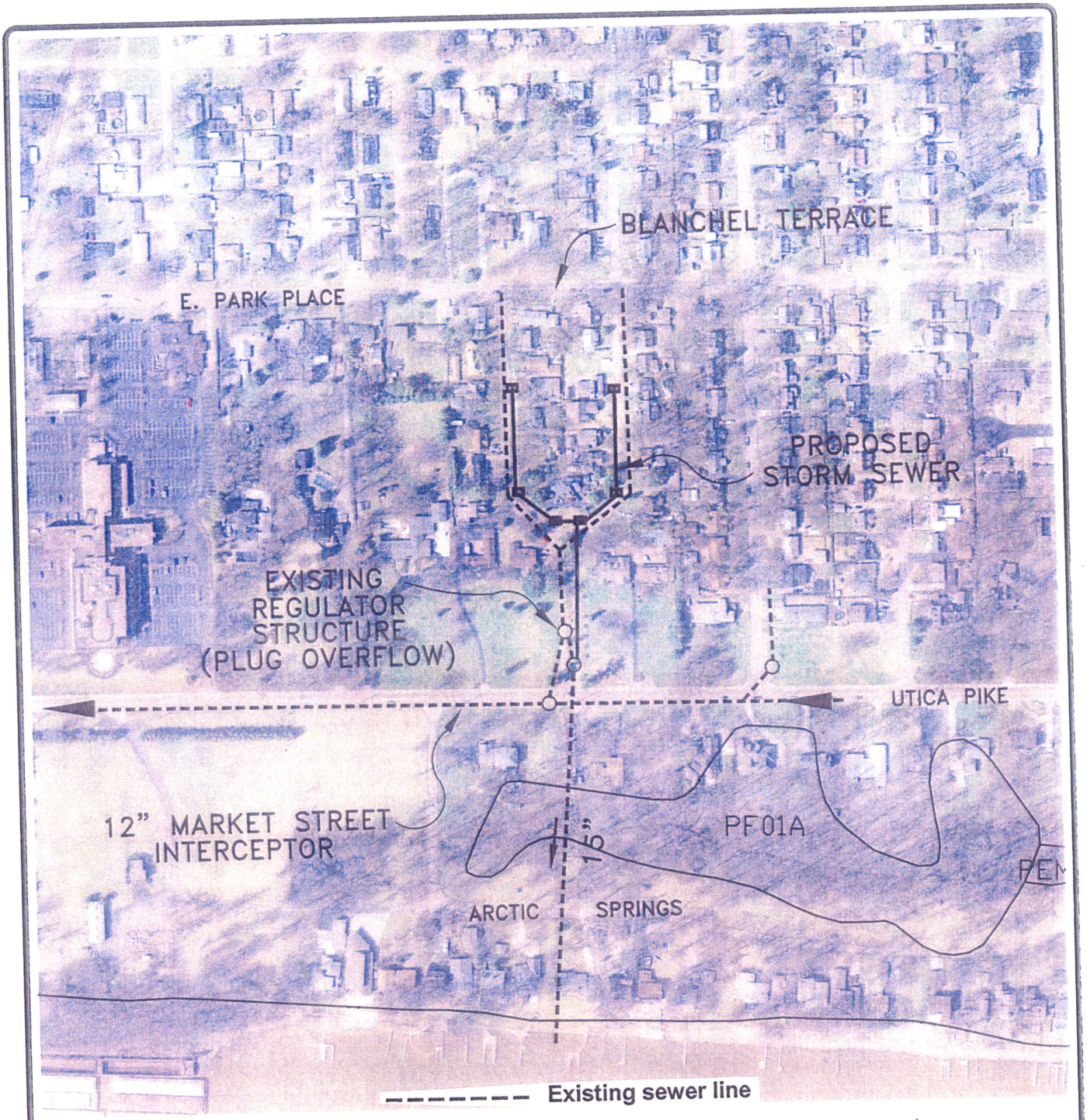
CLARK COUNTY INTERIM REPORT
INDIANA HISTORIC SITES AND STRUCTURES INVENTORY

REV. 7/26/07

NO SCALE

Figure C-9

Figure C-9



GRAPHIC SCALE

300 0 150 300 600

(IN FEET)

1 inch = 300 ft.

WETLAND MAP

CSO # 014 BLANCHEL TERRACE

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-10

2-844-020

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GRAPHIC SCALE

800 0 400 800 1,600

(IN FEET)

1 inch = 800 ft.

WETLAND MAP

EWING LANE PUMP STATION & FORCE MAIN

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-11

2-844-025

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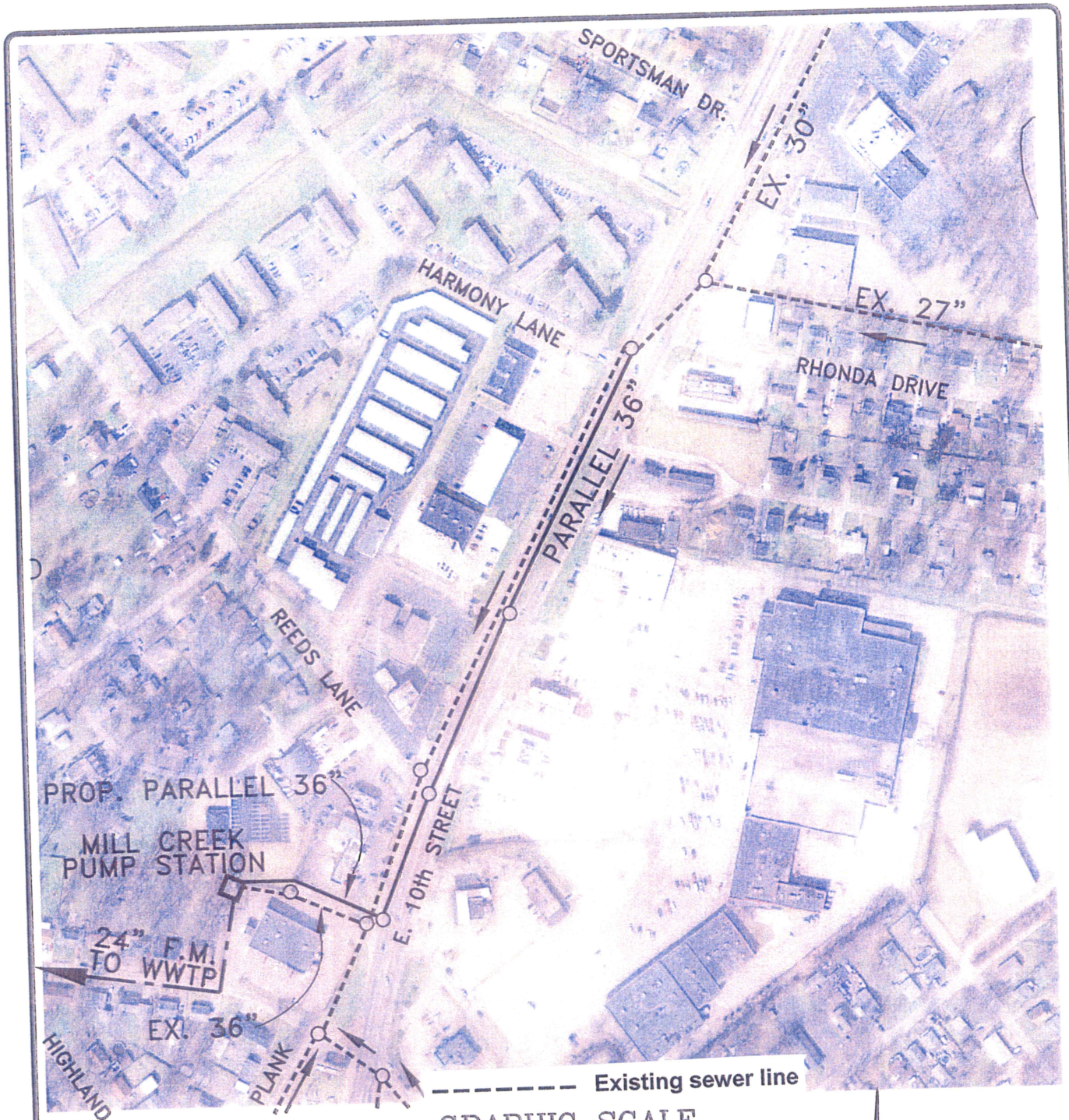

REV: 7-10-2007

WETLAND MAP

MILL CREEK PUMP STATION (MCPS)

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-12

GRAPHIC SCALE

1,000 0 500 1,000 2,000

(IN FEET)

1 inch = 1000 ft.

WETLAND MAP

10th STREET PHASE 2 STORMWATER SEPARATION

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-13

2-944-025

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GRAPHIC SCALE

1,000 0 500 1,000 2,000

(IN FEET)

1 inch = 1000 ft.

WETLAND MAP

10th STREET CSS INTERCEPTOR REHABILITATION

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-14

2-944-025

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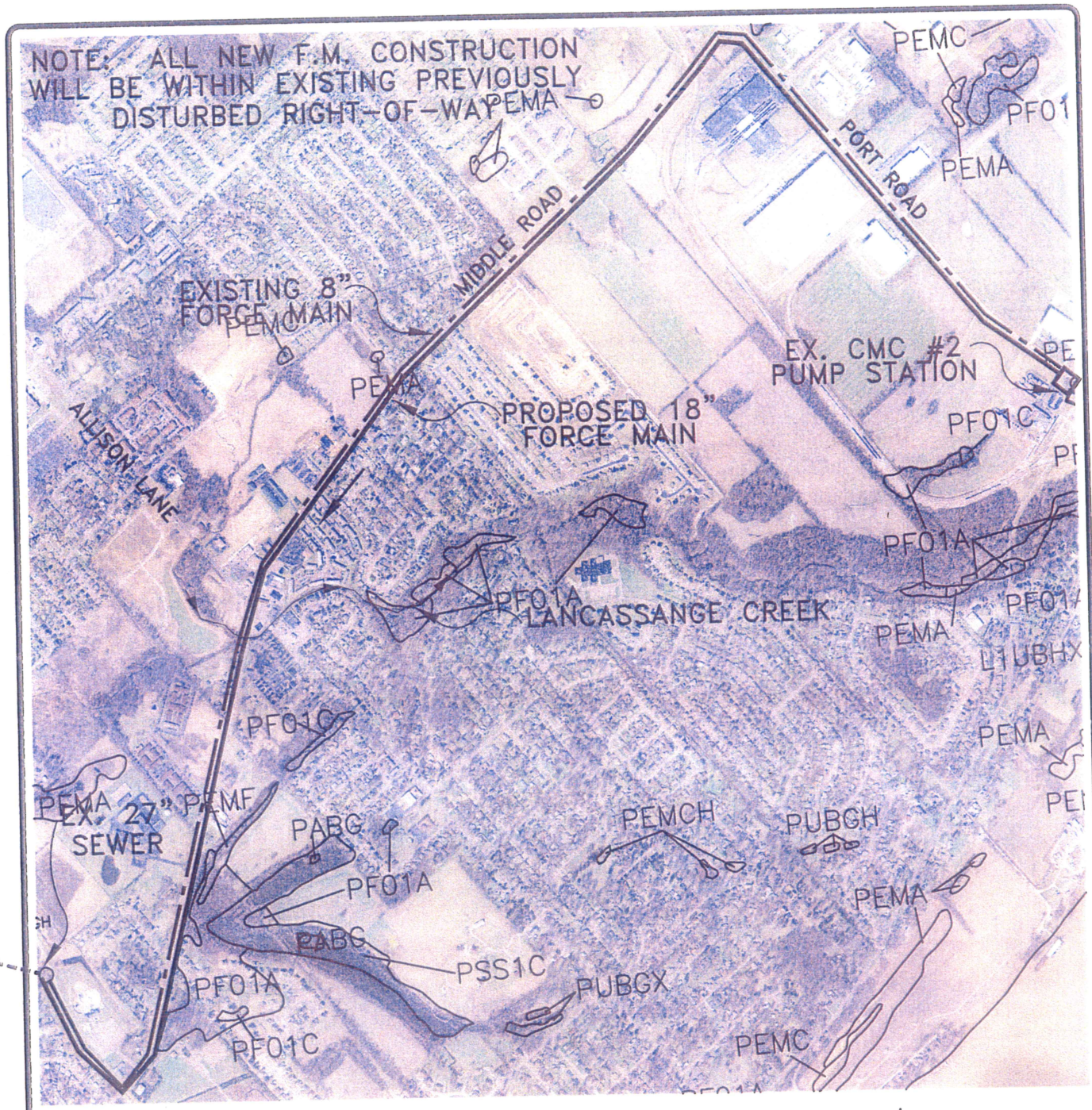


GRAPHIC SCALE

1,500 0 750 1,500 3,000

(IN FEET)

1 inch = 1500 ft.

WETLAND MAP

MIDDLE ROAD FORCE MAIN

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-15

2-944-025

received 7/25/07

GRAPHIC SCALE

300 0 150 300 600

(IN FEET)

1 inch = 300 ft.

REV: 7-26-2007

WETLAND MAP

CSO #006

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

Figure C-16

2-944-025

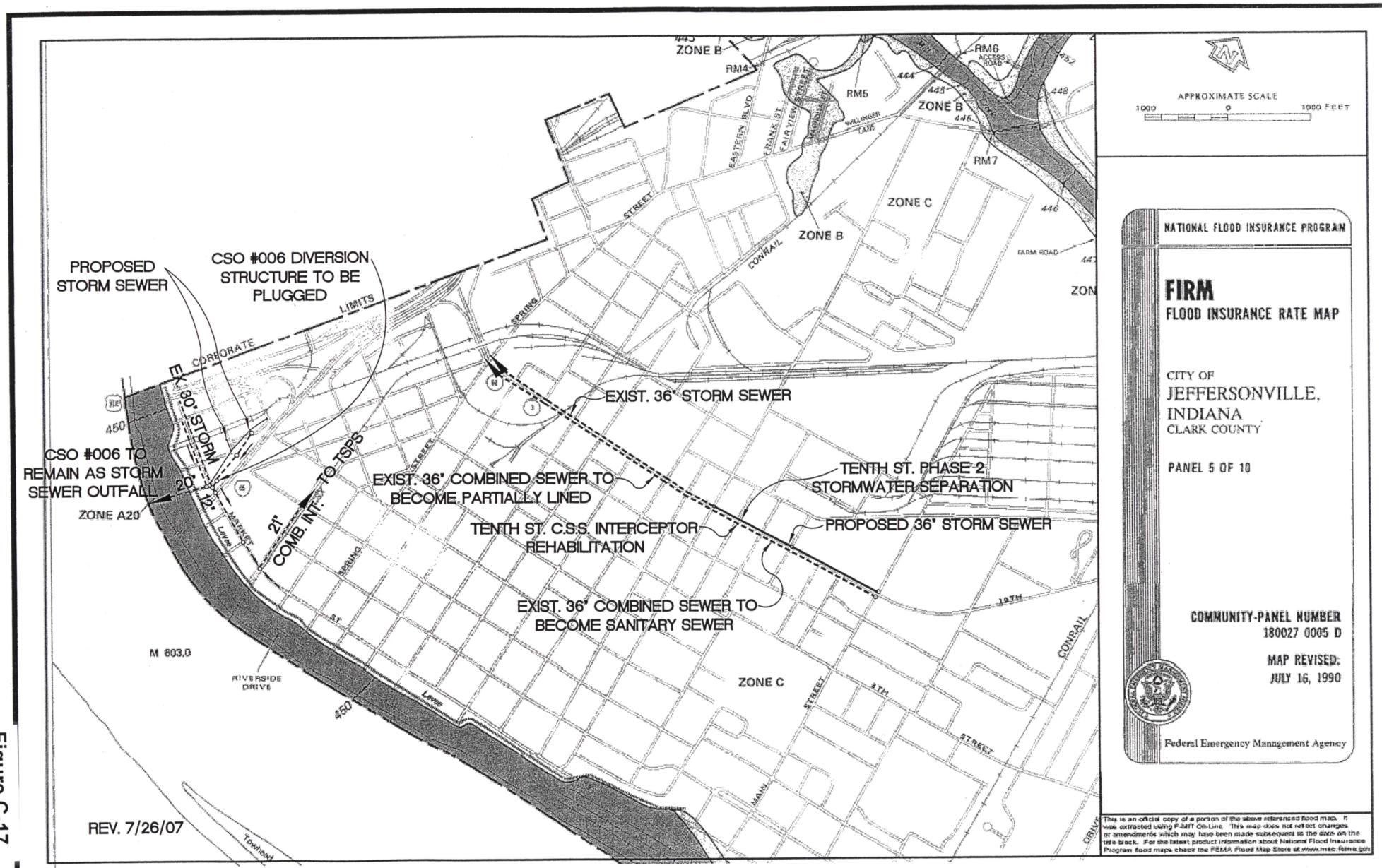


Figure C-17

Figure C-17

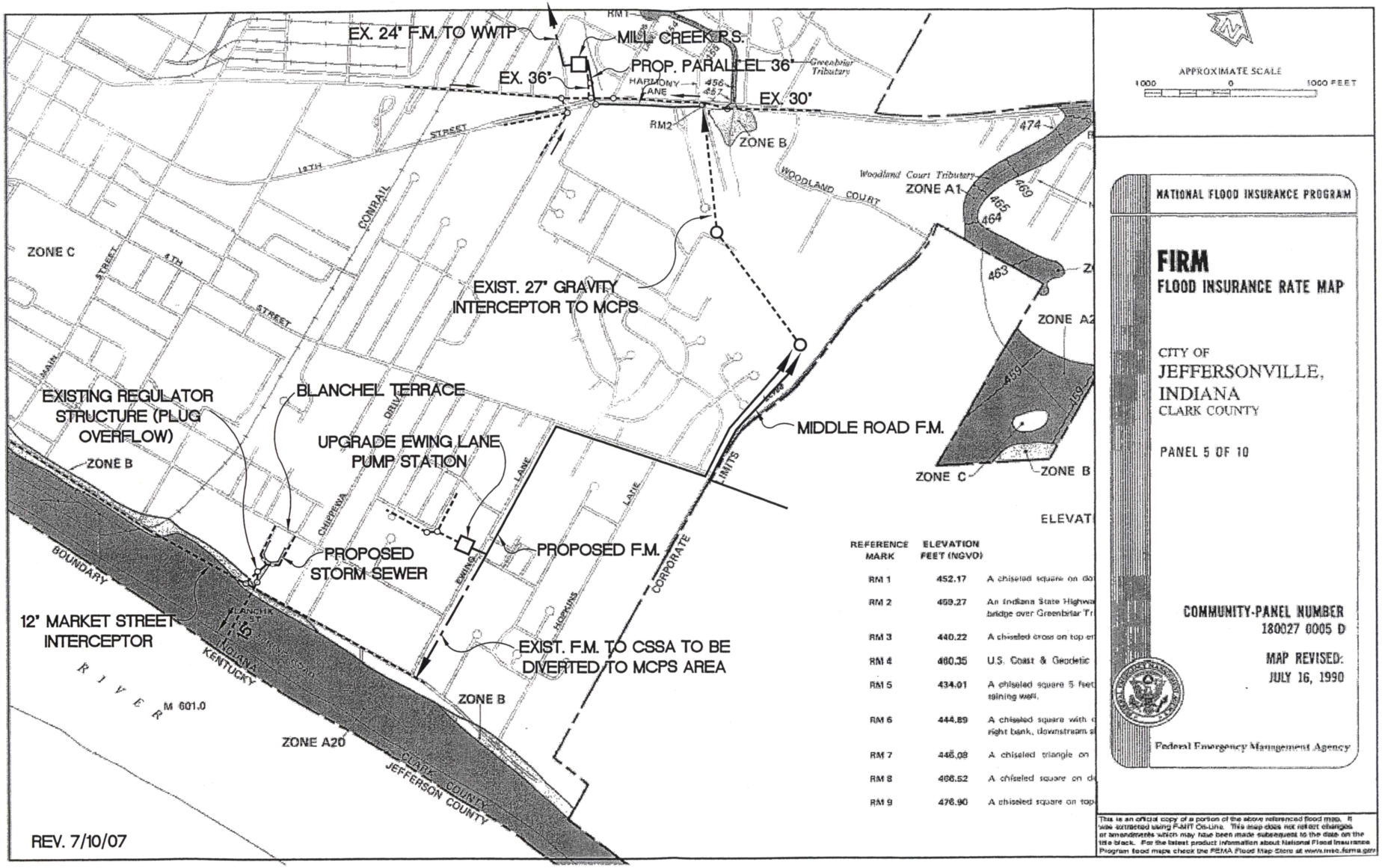


Figure C-18

Figure C-18

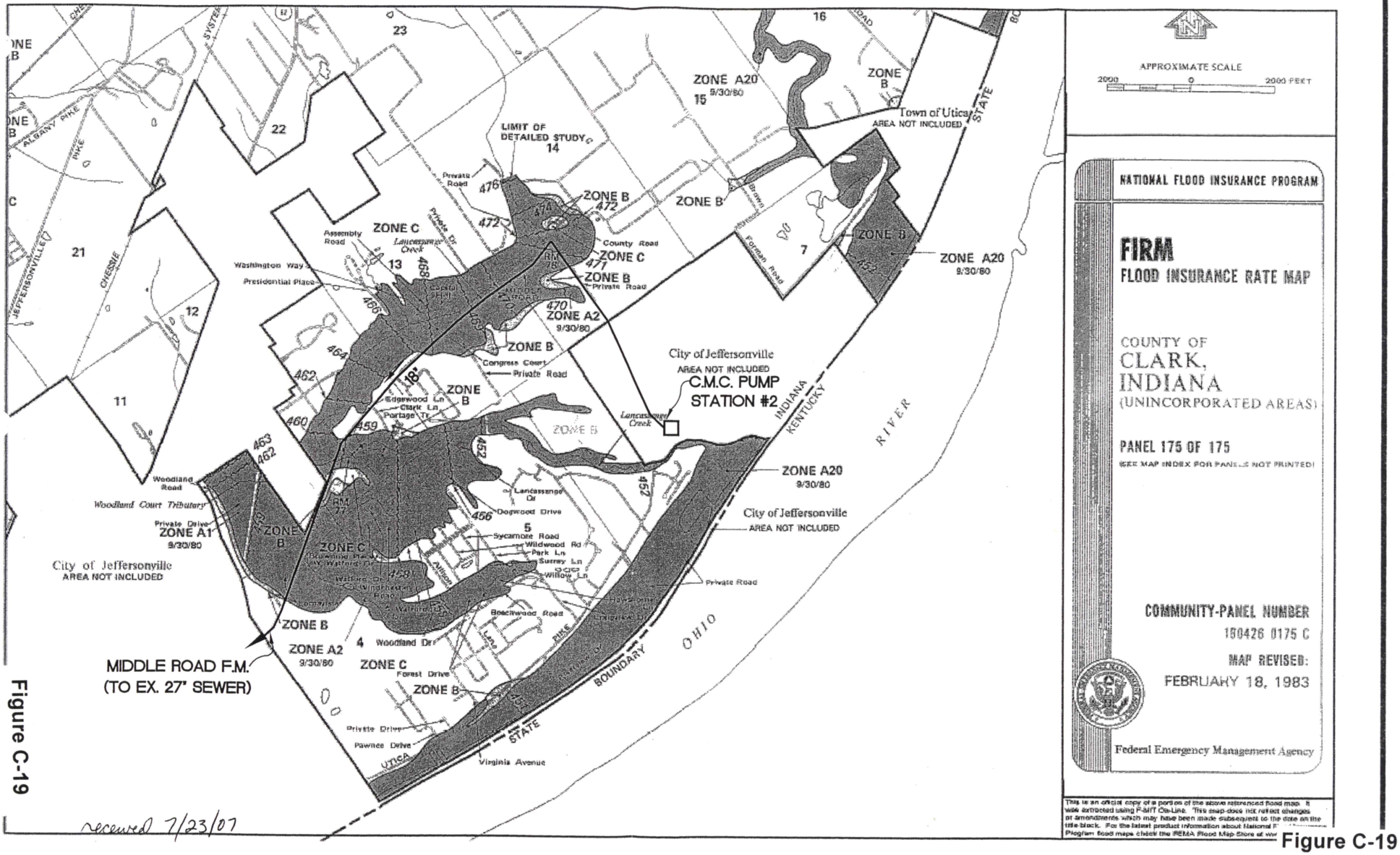


Figure C-19

received 7/23/07

Figure C-19

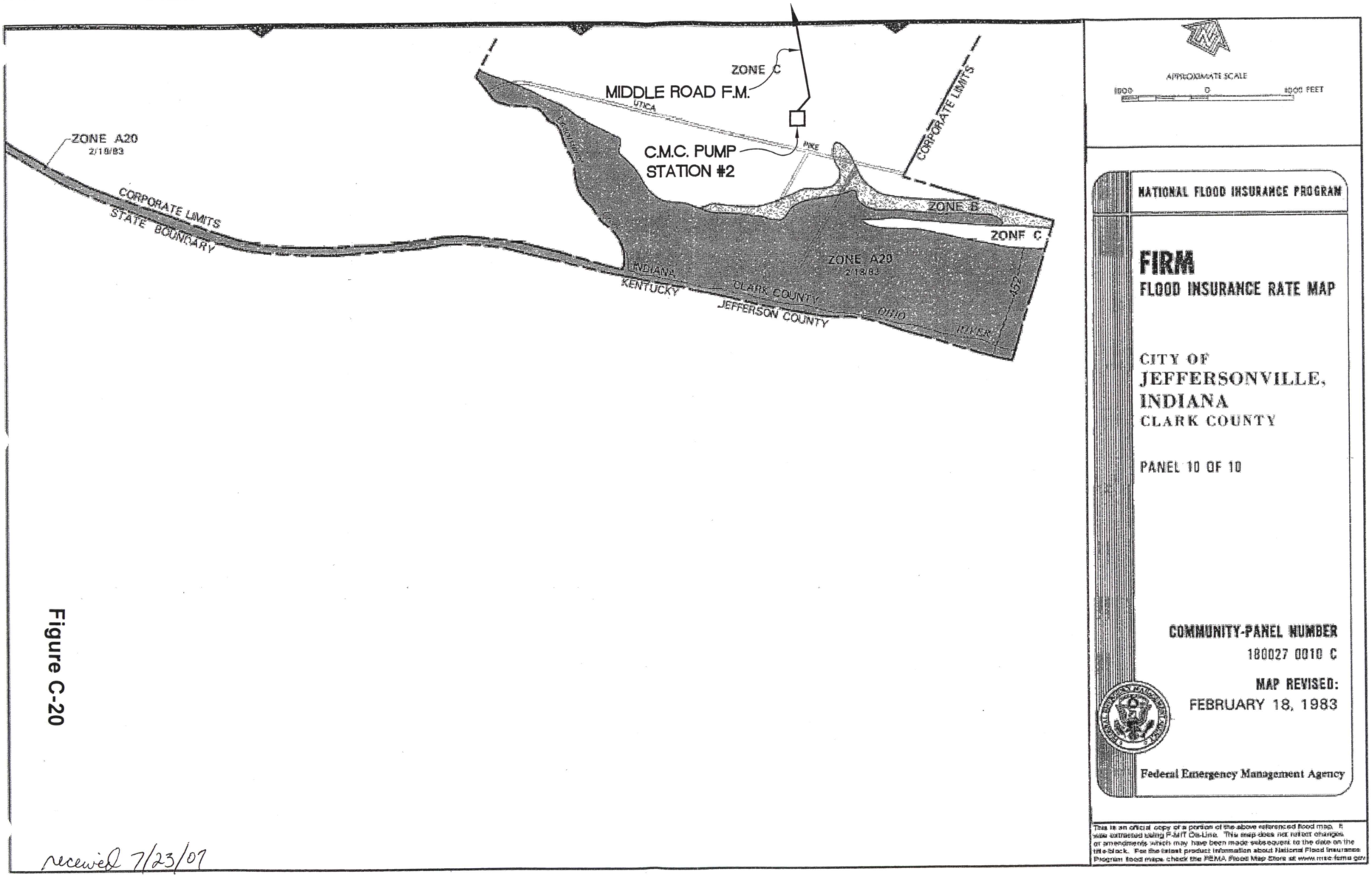
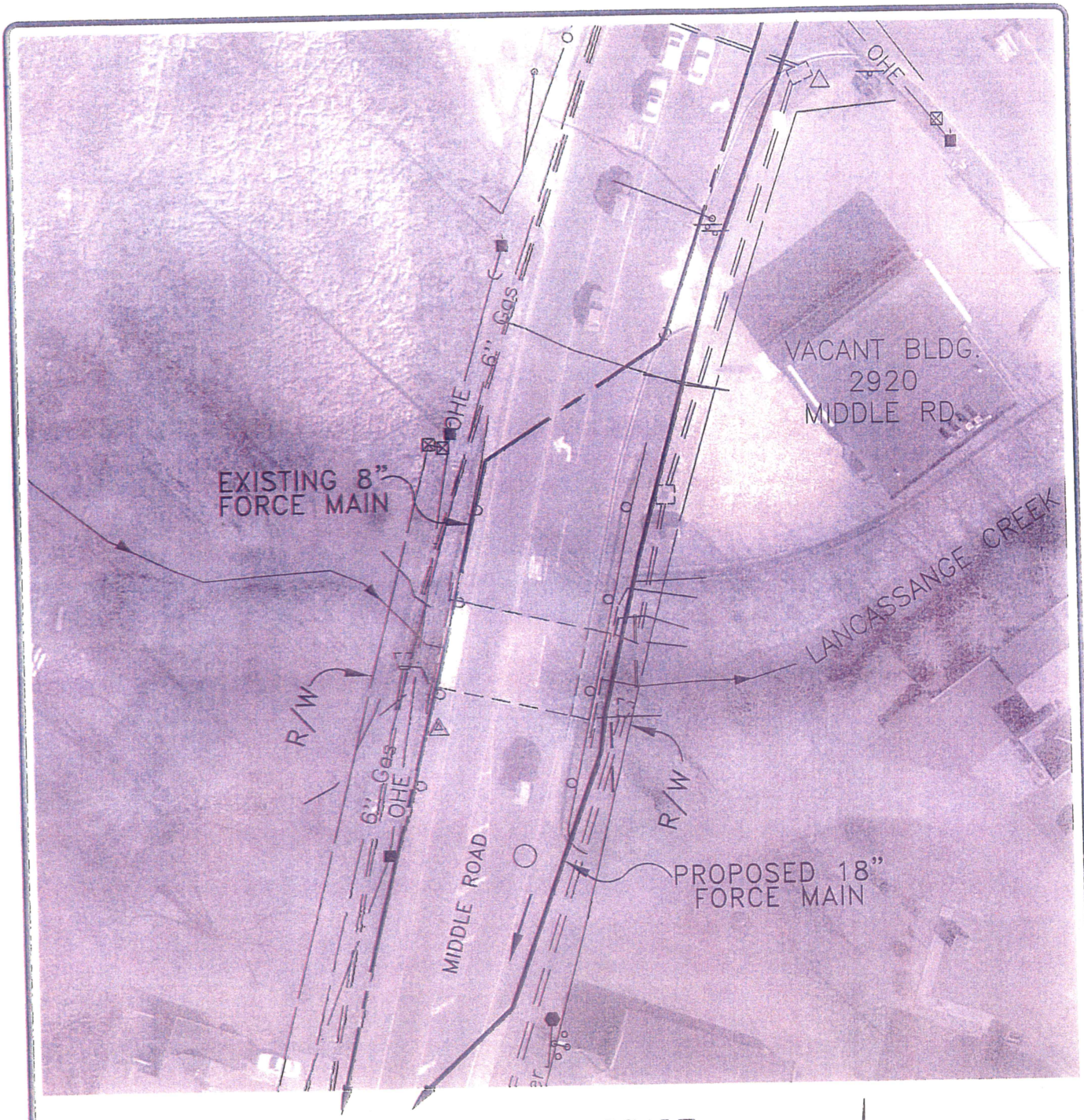


Figure C-20

received 7/23/07



GRAPHIC SCALE

50 0 25 50 100

(IN FEET)

1 inch = 50 ft.

JEFFERSONVILLE COLLECTOR SYSTEM IMPROVEMENTS

MIDDLE ROAD FORCE MAIN-LANCASSANGE CREEK CROSSING

PRELIMINARY ENGINEERING REPORT

CITY OF JEFFERSONVILLE, INDIANA

STRAND ASSOCIATES, INC.® ENGINEERS

FIGURE 5.09-1

2-944-025